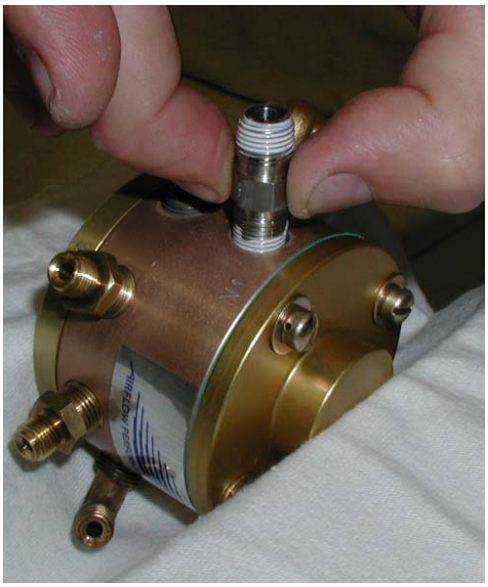
AIRFLOW PERFORMANCE

Service Bulletin
Date 9-23-09
Part 2

ASSEMBLY

Clean the pipe ports with lacquer thinner. Apply a small amount of pipe sealant on the first three or four threads of the stainless steel pipe nipple. Use Loctite 565 or equivalent. Hold the flow divider in a vise as was done with the disassembly.

Loctite sealant applied to the thread ends of the fitting



Install one end of the fitting in the flow divider, the other end in the purge valve housing “out” port.

WARNING

Do not use Teflon tape as a pipe thread sealant

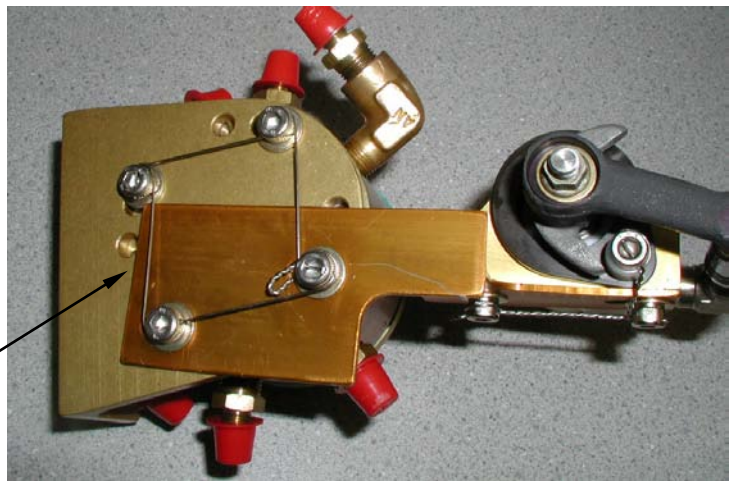
Tighten the assembly by hand. Normal torque is 50-60 in-lbs. Do not exceed 100 in-lbs. to position part.

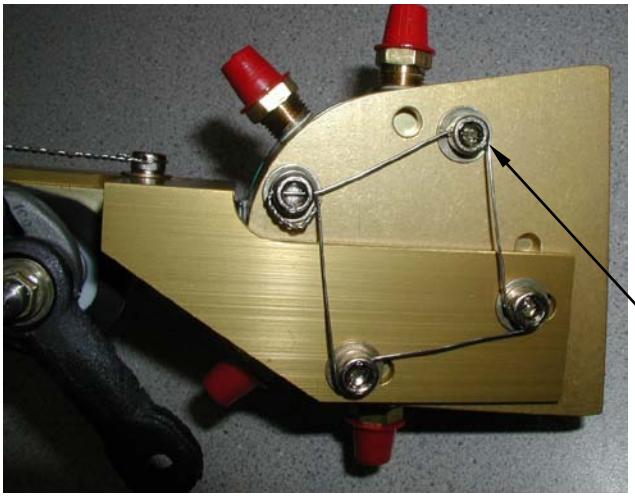
Purge valve in position for vertical mount installation

For vertical mount installations, reinstall flow divider and purge valve brackets. Position the flow divider then install the two screws to attach the bracket to the purge valve housing. Torque all screws 20-35 in-lbs. .025-diameter single strand lock wire is permissible on the flow divider bracket screws.

Old style vertical mount purge valve bracket

Single strand lock wire the flow divider bracket screws





New style vertical mount purge valve bracket.

Single strand lock wire, the four flow divider bracket screws.

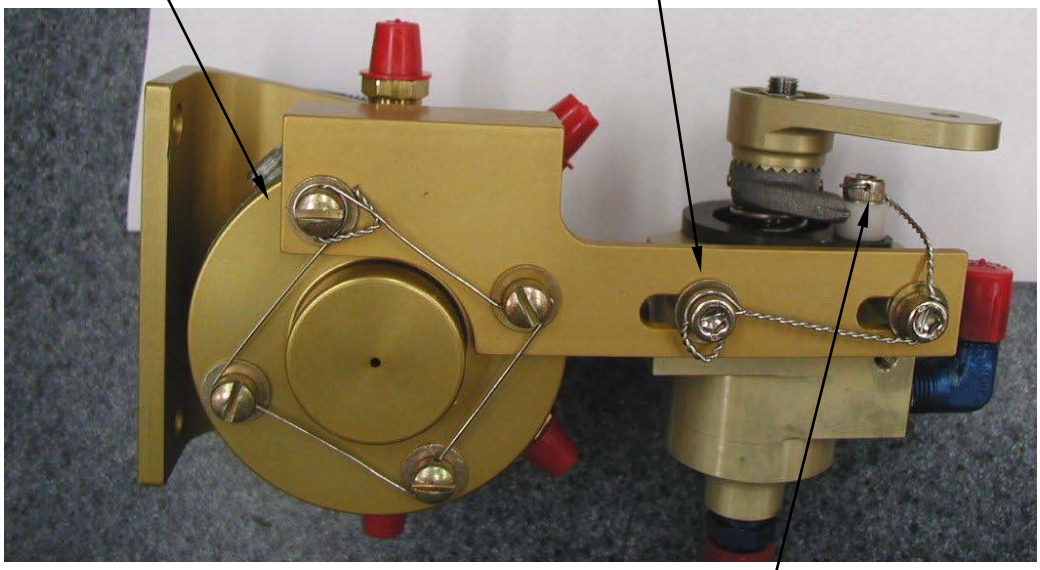
Using .025-diameter lock wire, lock wire the two purge valve screws to the purge valve stop screw.

Purge valve stop screw

WARNING

Failure to lock wire the stop screw holding the purge valve in the housing will result in immediate engine stoppage if the screw backs out.

For horizontal mount flow divider/purge valve assemblies, attach the purge valve bracket with the two flow divider cover screws. There is a washer (AN960-10L) between the cover and the bracket. Leave the screws loose then install the two screws to attach the purge valve bracket to the purge valve housing. There are two spacers between the purge valve bracket and the purge valve housing. Torque all screws 20-35 in-lbs. .025-diameter single strand lock wire is permissible on the flow divider cover screws.



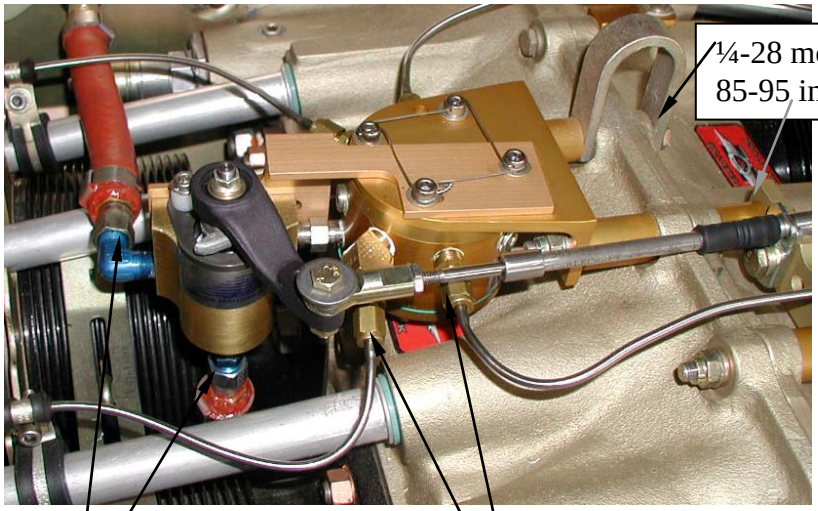
Using .025-diameter lock wire, lock wire the two screws that attach the purge valve bracket to the purge valve housing and to the purge valve stop screw.

WARNING

Failure to lock wire the stop screw holding the purge valve in the housing will result in immediate engine stoppage if the screw backs out.

INSTALLATION ON THE ENGINE

Reassemble the purge valve/flow divider assembly to the engine. Connect all nozzle lines, hoses and cable connections. Torque the ¼-28 bolts that attach the assembly to the engine 85-95 in-lbs. Torque the nozzle line B-nuts to 20-25 in-lbs. Torque the #4 hose connections 135-150 in-lbs. Re attach any return spring system that was installed on the purge valve assembly, and cotter pin any castellated nuts if used for the purge valve cable hook up to the purge valve lever. Check for correct operation and rigging of the purge valve control.



Leak check the fuel system by setting:

Mixture Full Rich
Throttle wide open
Purge valve OFF (ICO)
Boost pump ON

Allow the fuel system to run for one to two minutes. If the fuel system operates satisfactory, locate aircraft in suitable location to test run the engine with the cowl off. Start and run the engine. Bring the engine to operating temperature. Perform mag check, run-up, and cycle prop if applicable. If operation is normal shut down the engine and check for leaks and re-check torque on all fasteners and hose connections that were removed. Re-cowl engine and make appropriate log book of the work preformed.